County of San Diego

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EYE GNAT NUISANCE PREVENTION PLAN (2010)

In accordance with San Diego County Ordinance Section 2. Title 6, Division 4, Chapter 2 it is my/our intention to prevent and control eye gnats on the Bornt Farm located in Jacumba utilizing the following prevention method(s) as recommended by the University of California:

I. PREVENTION METHODS

Bornt Farms will implement the following prevention methods during the 2010-growing season:

Trap Crops

- Create an eye gnat exclusion zone by removing farm production 100 feet in from the outer farm edge that borders the community.
- Within the exclusion zone plant a series of trap crops: alfalfa and corn as recommended by the University of California.
- Trap crops will be treated with a conventional pesticide as recommended by the University of California on a weekly basis throughout the growing season.
- Conventional pesticide applications will be kept at acceptable distances from organic crop production to prevent drift.
- Separate application equipment will be used to treat organic crops.

Trapping

- All Bornt-constructed traps will be modified to be more effective in trapping adult eye gnats. This includes spraying the collars black, both inside and outside. The paper funnels will be better sealed between the collar and the upper portion of the trap or the paper funnels will be replaced with a fitted plastic funnel.
- Traps will be at most 10 feet apart and begin at the Mexican border, the southern most ends of the farm, and end at the northern most end of the farm. The traps will be employed at the edge closest to the community border. An additional 1000 adult collar traps will be placed within the exclusion zone.
- Eye gnat trapping should occur no higher than 36 inches since the majority of eye gnats at the farm are captured near ground level.
- All traps will be inspected by Jim Bethke, University of California, or his representative prior to installation.
- All traps will be maintained in order to ensure the highest level of efficiency per direction of Jim Bethke, University of California, or his representative.

Chemical Control

- Treatments of Ecotrol EC at the highest recommended rate (3 quarts or 98 floz/100 gallons) will be applied to the fresh cut crop residue. This application will be within 24 hours of harvest and will occur following every harvest.

- Routine treatments of Entrust or Pyrethrum for general insect control (worms, etc.) will also occur throughout the growing season beginning with the first growing cycle. At a minimum there will be at least one application per crop during the spring and early summer and if necessary during the fall.

Cultural Control Methods

- Organic matter production will be reduced by drying the cut crop until it flakes when crushed or by burning the crop residue on the bed.
- Weed control outside the crop will be controlled with herbicides not tilling.
- Eye gnat populations peak during the warmest times of the year, which leads to greater populations toward the end of the year and in the following year. Therefore, a fallow growing period for the entire growing area during the months of July and August will be instituted. Crops can be rotated out of production and back into production so that there is a fallow period on the entire growing grounds; however, enough time will be allowed so that the rotation can occur over time and not all at once.

Self Reporting

Bornt Farm agrees to report the following to the County of San Diego Vector Control Program as follows:

- Initial planting of the eye gnat exclusion zone
- Completion of the placement of traps
- Confirmation that farm begins the fallow period starting on July 1st

II. RESEARCH GOALS

Bornt Farm agrees to continue to support the University of California Riverside's eye gnat research efforts during 2010. These efforts include but are not limited to:

- Send the University of California Cooperative Extension the sum of $10,000 to continue eye gnat research in Jacumba.
- Allow the University of California to monitor the effectiveness of cultural control and prevention methods implemented by Bornt Farm during 2010.
- Continued eye gnat population surveillance through collar trapping data on a GPS grid of 1000 feet within the community and determination of background levels of eye gnats in the surrounding environment.
- Determine the effect of organic certified pesticides and repellents on adult and larval eye gnats when treating the crop and when treating fresh cut foliage.
- Determine the effectiveness of treating a trap crop with conventional pesticides.
- Determine the effect of allowing the farm to go fallow for periods during maximum eye gnat population production
- Continued development of effective eye gnat traps and baits

Alan Bart Date: 2-4-10